Small Business Innovation Research/Small Business Tech Transfer

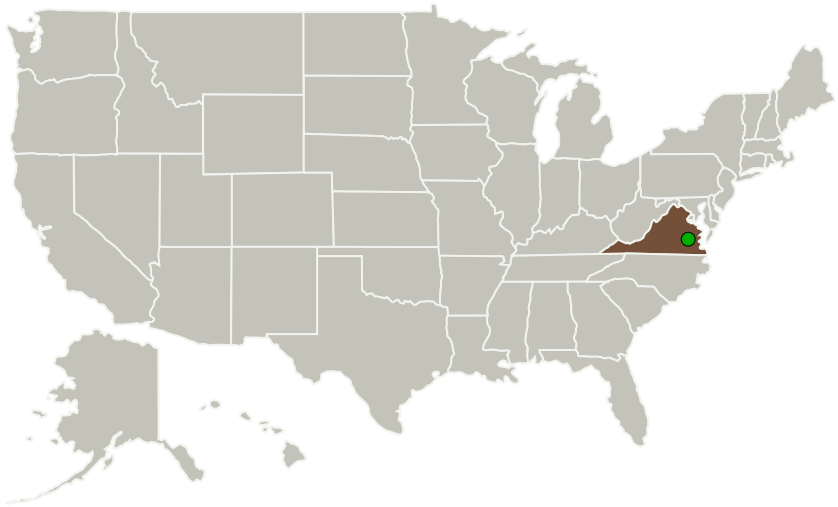
NExT ADS-B - An Affordable Architecture for ADS-B Coverage to the Surface for UAS in the NAS, Phase I

Completed Technology Project (2017 - 2017)

Project Introduction

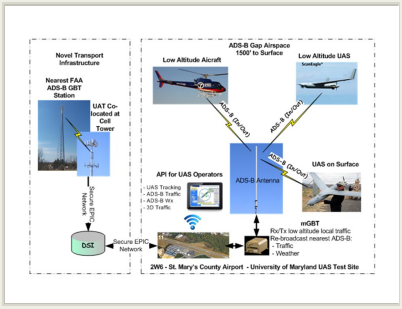
We have designed an UAS and aircraft extended communication network to cover the critical low altitude national tracking gap from the ground to 3000ft in the FAA's NextGen. Our no-Gap ADS-B network design is nationally scalable and offers interoperability with the deployed national network. Our design does not need expensive infrastructure, it is modular for on-location demand yet is nationally scalable, so will cost far less than existing solutions. Our FAA approved secure weather data network design will be extended to provide secure UAS & aircraft traffic data.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Dynamic Systems Integration	Lead Organization	Industry	Virginia Beach, Virginia
Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia

Primary U.S. Work Locations
Virginia



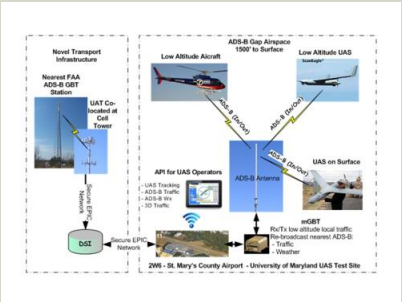
NExT ADS-B - An Affordable Architecture for ADS-B Coverage to the Surface for UAS in the NAS, Phase I Briefing Chart Image

Table of Contents

NExT ADS-B - An Affordable Architecture for ADS-B Coverage to the Surface for UAS in the NAS, Phase I

Completed Technology Project (2017 - 2017)

Images



Briefing Chart Image
NExT ADS-B - An Affordable Architecture for ADS-B Coverage to the Surface for UAS in the NAS, Phase I Briefing Chart Image *(https://techport.nasa.gov/image/132612)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Dynamic Systems Integration

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

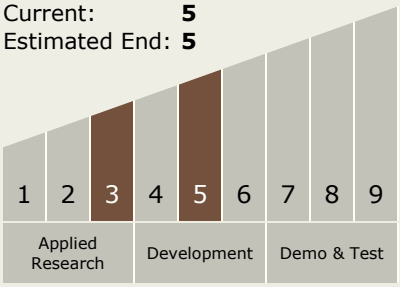
Carlos Torrez

Principal Investigator:

Gregg E Schneider

Technology Maturity (TRL)

Start: **3**
Current: **5**
Estimated End: **5**



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Technology Areas

Primary:

- TX10 Autonomous Systems
  - TX10.2 Reasoning and Acting
    - TX10.2.4 Execution and Control

Target Destinations

The Moon, Mars, Outside the Solar System, The Sun, Earth, Others Inside the Solar System